



Jon Appel, Plant Pathologist

Plant Disease in Kansas

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HIGHLIGHTS

Stripe rust of wheat has reached moderate to high levels in certain fields in southeast Kansas.

Wheat streak mosaic was widespread in western Kansas.

Hosta Virus X was verified at several locations in Kansas. The disease is readily transmittable and is significant to the health of the plants.

Asian soybean rust has been reported in some new counties in Florida on kudzu and suspected and awaiting confirmation in volunteer soybeans in Georgia.

OUTLOOK

Wheat foliar disease should increase with warmer temperatures in the forecast. Damage from cold freezing temperatures should be evident as many fields were in the boot to early heading stages of development.

FOREST STANDS

Hypoxylon canker was again found in burr and red oak stands. The opportunistic fungus was at an incidence of about 10% of the mature trees in one Atchison County site.

PERENNIALS

Hosta Virus X was identified in 10 of 15 samples taken recently by KDA personnel in survey/inspection activity of retail and landscape lots. This virus of hosta has recently been of concern in the United States because of increasing incidence and potential importation from abroad. It is reported to be easily transmissible from one plant to another by sap and weakens the plant which leads to death over time (J. Appel, KDA). Other viruses are also of concern for this popular landscape plant.

Infected plants were found in Sedgwick, Riley, Shawnee, and Johnson counties. Varieties with positive tests included Golden Tiara, Hosta Assortment, Blue Cadet, Sum and Substance, Moerheim, and So Sweet.

Consistent symptoms with the disease included mosaic and puckering of leaf tissue.



Figure 1. Hosta Virus X with mosaic and light puckering of foliage

Figure 2. Hosta Virus X with strong puckering of foliage





Figure 3. Normal variegation: non infected with Hosta Virus X

WHEAT

Wheat disease reports were on the increase as expected for this time of year. KSU Extension Service (J. Stack) reported widespread reports of wheat streak mosaic in western Kansas during a recent tour. Severities varied from a few plants to moderate incidences. West central Kansas was reported with numerous reports. In south central Kansas, wheat streak mosaic was not as common but some fields were observed with incidences of over 40 per cent (J. Appel). In southeast Kansas, barley yellow dwarf was present in many of the fields visited but incidences were generally trace to five per cent. In the northeast and north central, wheat spindle streak symptoms of dashing could still be observed in many fields.

For foliar disease, the big concern still remained with the amount of stripe rust present in fields. In a Montgomery County field along K-166, severity was assessed at above 25% of the flag leaf area at boot stage. This field was the anomaly as many fields had stripe rust but just at detectable to 5% severity of the flag leaf (J. Appel). In western Kansas, stripe rust could easily be found but at trace levels.



Figure 4. Stripe rust of wheat